

GUTMANN, E

✓ The significance of the nervous system for the super-
compensation of glycogen loss in the skeletal muscle.
E. Gutmann, Z. Vodička, and G. Vrbková (Physiol. Inst.
Czech. Acad. Sci., Prague). *Physiol. Bohemoslov.* 3, 183-
90 (1954). — The ability of the muscles to synthesize glycogen
in increased quantity after being charged with an elec. cur-
rent was investigated. The expts. were performed on rats
by direct excitation of tibialis anterior with d.c. during the
course of 15 min. At the end of this time a 50% glucose
soln. was introduced into the animal's stomach. After
2, 4, and 6 hrs., the glycogen in the muscles was detd.
The gradual loss of the glycogen supercompensation in the
muscle after suspension of somatic innervation, and after
myelotomy and tenotomy was investigated. L. M. W.

3

med

GUTMANN, E.; VODICKA, Z.; ZELENA, J.

Modifications in the striated nerve following section of the nerve and their relation to the conditions in the peripheral nerve stump. Cesk. fysiол. 4 no.2:181-185 May 55.

1. Fysiologicky ustav Cs. akademie ved, Praha.
 (MUSCLES, metabolism,
 glycogen, eff. of nerve section)
 (GLYCOGEN, metabolism,
 musc., eff. of nerve section)

Gutmann, E.

Resynthesis of glycogen in muscle after stimulation.
A. Bass, E. Gutmann, and Z. Vodlíček (Czech Acad. Sci., Prague). *Physiol. Bohemoslov.* 4, 267-76 (1956) (in English); cf. C.A. 51, 6901d. — The course of glycogen resynthesis was studied following the direct stimulation of the tibialis anterior and gastrocnemius muscles, and a nerve-muscle prep. of the rat diaphragm. After direct stimulation, glycogen synthesis was activated in normal muscle. This activation was not found in denervated muscle, in which the course of resynthesis resembled the curve of a simple enzymic reaction. The threshold frequency of direct stimulation activating glycogen synthesis varies in different muscles, and depends on the nature of the functions of the muscle. The functional state of the cerebral cortex influenced the rate of resynthesis. After administration of NaBr the course of resynthesis resembled that in a denervated muscle. The findings are discussed according to the working hypothesis which defines the trophic influence of the nervous system as the nervous control of metabolic recovery processes. Felix Saunders.

Med 3

BASS, A.; GUTMANN, E.; VODICKA, Z.

Resynthesis of muscle glycogen following work. Cesk. fysiол.
4 no.4:419-426 22 Oct 55.

1. Fysiologicky ustav CSAV, Praha.
 (GLYCOGEN, metabolism,
 musc., resynthesis after work)
 (MUSCLES, physiology,
 glycogen, resynthesis after work)
 (WORK, physiology,
 musc. glycogen resynthesis after work)

GUTMANN, E.; VODICKA, Z.

Physiopathology of pain. Prakt. lek., Praha 35 no.18:421-424
20 Sep 55.

(PAIN, pathology,
physiopathcl.)

GUTMANN, E.

✓ Tropic affect of nerves. Ernest Gutmann (Ceskoslov. akad. věd, Prague). *Časopis Lékařů Českých* 94, 452-8 (1955).—A more exact definition of the tropic function has been sought. Metabolic processes of recovery in tissues after functional load and damage form the primary task of a study of tropic function. Glycogen (I) synthesis is impaired and the pendulum reaction (supercompensation) of I level in muscle following activity is suppressed in denervated muscle. Myelotomy prevents the normal course of I change in muscle. Administration of caffeine or Br also changes postfunctional I level. Degradation and resynthesis of I can also be elicited by conditioned reflex. A kind of pendulum reaction of I level in muscle can also be observed after reinnervation. Metabolic excursions after exercise are smaller in trained animals. Previous repeated painful stimulation leads to an increase of glycemia and muscle I following glucose intake. Impaired protein formation from previous denervation is suggested by the reversal of the change in arterio-venous difference of non-protein N after muscular excitation. Following water intake, water content in muscle increases temporarily but falls then below the original level in normal muscles. This supercompensation does not occur in denervated muscles. I. M. Haia.

CZECHOSLOVAKIA/Human and Animal Physiology. The Nervous System.

V

Abs Jour: Ref. Zhur-Biol., No 6, 1958, 27421.

Author : G. Vrbová and E. Gutmann

Inst :

Title : Recovery of Conditioned Motor Reflexes After Interruption of a Nerve.

Orig Pub: Českosl. fysiол., 1956, 5, No 1, 1-12.

Abstract: Reflex spreading of the phalanges of the extremities can be produced in the rat by suddenly interrupting the animal's equilibrium (by removing the support upon which it is leaning). Such an unconditioned stimulus served as reinforcement in the formation of a conditioned response to the sound of a bell. Eight combinations were performed

Card : 1/3

CZECHOSLOVAKIA/Human and Animal Physiology. The Nervous
System

V

Abs Jour: Ref. Zhur-Biol., No 6, 1958, 27421.

each day: on the ninth day the conditioned reflex attained 100%. It was quite stable and had not undergone extinction even after a month. Following denervation of an extremity by pinching the sciatic nerve, reflex spreading of the phalanges of the extremities disappeared and became reestablished between the 8th and 12th day. In rats in which production of the conditioned reflex was undertaken the day after the operation, it appeared on the average on the 11th day after recovery of the unconditioned reflex. In rats in which reinforcement was begun 16 to 18 days or one month after denervation, 90 to 100% showed positive responses on the very first trial. This phenomenon is explained

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CZECHOSLOVAKIA/Human and Animal Physiology. The Nervous
System

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Abs Jour: Ref. Zhur-Biol., No 6, 1958, 27421.

by the emergence of inhibitory processes in the motor analyzer within the period of denervation and recovery. When the posterior roots were sectioned at the level of L₁--L₂, the unconditioned reflex remained, but fatigued rapidly. The conditioned reflex was produced with great difficulty, and during its elicitation the phenomenon of extinction took place, the cause of which was the absence of afferent signalization.

Card : 3/3

GUTMANN, E.; BASS, A.; VODICKA, Z.; VRBOVA, G.

Nervous control of trophic processes in striated muscle.
Physiol. bohém. 5:14-16 Suppl. 1956.

1. Institute of Physiology, Czechoslovak Academy of Sciences,
Prague.

- . (MUSCLES, metab.
glycogen, control by nerves in striated musc.)
- (GLYCOGEN, metab.
musc., control by nerves in striated musc.)

CZECHOSLOVAKIA/Human and Animal Physiology. Neuromuscular Physiology T-11

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 65604

Author : Drahota Z., Gutmann E., Vrbova G.

Inst : Fysiologicky ustav CSAV, Praha.

Title : The Potassium Content of Normal Denervated and Innervated Muscle.

Orig Pub : Ceskosl. fysiол., 1956, 5, No 3, 276-282

Abstract : The potassium content of the muscles of the extremities of rats was determined photometrically after an intraperitoneal dialysis was performed by the injection of Tyrode's solution (12 times within a 24 hour period). In normal muscle the potassium content after dialysis was reduced by 7.92% on the average; after a 1.1% solution of KCl (5 mg per 100 g) was injected into the peritoneal cavity, the potassium content increased by 10.77%, i.e., it approximated the initial level. The potassium content of denervated muscle

Card : 1/2

CZECHOSLOVAKIA/Human and Animal Physiology. Neuromuscular
Physiology

F-11

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 65604

decreased by 11.07%; after the injection of KCl the potassium level did not change. The potassium content of re-innervated muscle diminished by 31.13% and increased by 58.45% after the injection of KCl. The experiments corroborate the influence of a neuroregulatory mechanism on the exchange processes of the muscles.--S.Ya.Marmorshteyn.

Card : 2/2

VRBOVA, G.; GUTMANN, E.

Disorders of motor function in poliomyelitis with special
reference to signal system. Cesk. pediat. 11 no.6:420-426
June 56.

1. Fysiolog. ustav CSAV.

(POLIOMYELITIS, physiology.

motor disord., role of signal system (Cz))

GUTMANN, E.

The importance of the functional state of the nerve centers for the rate of resynthesis of glycogen in striated muscle. Gertruda Vrbova and E. Gutmann (Inst. Physiol. Acad. Czechoslovakia, Sci., Prague). *J. physiol. (Paris)*, 40, 751-4 (1974). The notation: tibial muscle of rat, aged 3-4 months, was excited electrically. It was shown that the state of the nerve centers has an effect on the rate of resynthesis of glycogen (I). A denervation, or administration of a soporific decreases the rate of resynthesis. Increasing the excitability of the nervous centers by electrical stimulation of the anterior horn causes an acceleration of the rate of resynthesis of I. J. M. Widom

Periplaneta americana
MURRAY, V.; GUTWAND, E.

Denervation changes in muscles of insects; glycogen in normal and
denervated muscles of *Periplaneta americana*. Cesk. Spis. 6 no.2:
154-158 1957.

1. Glykogen v normalnich a denervovanych svalech *Periplaneta americana*.
(MUSCLES, innervation,
denervation, eff. on glycogen metab. in insects *Periplaneta*
americana (Cz))
(GLYCOGEN, metabolism,
musc. eff. of denervation in insects *Periplaneta americana*
(Cz))
(INSECTS,
Periplaneta americana, eff. of denervation on musc. glycogen
(Cz))

GUTMANN, YE.

KUBISTA, V.; GUTMANN, Ye.

Denervation Changes in Insect Muscle; Glycogen in Normal and Denervated muscle of *Periplaneta americana*. *Physiol. bohém.* 6 no.2:188-192 1957.

1. Institute of Physiology, Czechoslovak Academy of Science.

(MUSCLES, metab.

glycogen in normal & denervated muscle of *Periplaneta americana* (Rus))

(GLYCOGEN, metab.

in normal & denervated musc. of *Periplaneta americana* (Rus))

(NERVOUS SYSTEM, physiol.

eff. of denervation on glycogen metab. in musc. of *Periplaneta americana* (Rus))

CZECHOSLOVAKIA/Human and Animal Physiology (Normal and Pathological). Nerve and Muscle Physiology. T

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79913.

Author : Zak, A.; Gutmann, E.; Vrbov, G.

Inst :

Title : Quantitative Changes in Muscle Proteins After Direct Stimulation of Muscle.

Orig Pub: Ceskosl. fysiол., 1957, 6, No 3, 323-328.

Abstract: During direct electric stimulation of the anterior tibialis of a rat at the rate of 120 pul/min. there was noted immediately after stimulation an increase of the content of non-protein N by 20.8%; after 4 hours, the increase was maintained at 20.6%. Immediately after stimulation at a rate of 300 pul/min., the content of non-protein N decreased by 17.1%, and,

Card : 1/2

COUNTRY : Czechoslovakia
 CATEGORY : Human and Animal Physiology, Neuromuscular Physiology
 RES. JOUR. : RZNSiol., No. 5 1959, No. 22376
 AUTHOR : Vadička, A.; Gutmann, E.; Bass, A.
 INST. :
 TITLE : Glycogen Metabolism in the Skeletal Muscle of Rats Subjected to Nociceptive Stimulation.
 ORIG. PUB. : Ceskosl. fysiolo., 1957. 6, No. 5, 354--361
 ABSTRACT : Reflex atrophy of the skeletal muscles of the involved extremity was observed in rats subjected to nociceptive stimulation (injection of 0.05 ml of turpentine or smashing the tissues of the foot of a hind limb). The glycogen level in the muscle gradually fell after an initial slight rise; in the first 3 days this fall was greater than after transection of the motor nerves. When this was done there was a retardation of both the utilization and synthesis of glycogen; in the presence of nociceptive stimulation, however, this retardation was greater than af-
 Card: 1/2

INST. :
 TITLE :
 ORIG. PUB. :
 ABSTRACT : ter transection of the motor nerve. Glycogen metabolism in the presence of nociceptive stimulation depends on reflex depression of the metabolic link between motor nerve fibers and muscular tissue.--V.Gavlichek
 Card: 2/2

T-71

GUTMANN, Ye. (Praga)

Conference on the problems of neural regulation of metabolism.
 Usp. sovr. biol. 43 no.1:130-132 Ja-7 '57 (MLRA 10:5)
 (PRAGUE--METABOLISM--CONGRESSES) (NERVOUS SYSTEM)

HUDLICKA, O.; GUTMANN, E.

Disorders of energy metabolism in normal and denervated muscles in ischemia. Cesk. fyziol. 7 no.1:26-27 1958.

1. Fysiologicky ustav CSAV, Praha Predneseno na pravidelne schuzi fysiologicke spolecnosti v Praze dne 30. X. 1957.

(MUSCLES, metabolism,

carbohydrates, in normal & denervated musc. in ischemia (Cz))

(CARBOHYDRATES, metabolism,

musc., in normal & denervated musc. in ischemia (Cz))

GUTMANN, E.

SCIENCE

Periodical CESKOSLOVENSKA FYSIOLOGIE. Vol. 7, no. 1, Feb. 1958.

GUTMANN, E. International symposium on the innervation of the muscle. p. 63.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3, March, 1959,
Unclassified

GUTMANN, E.

"A conference on the biological basis for tissue transplantation, October 14-16, 1957." p. 300.

CESKOSLOVENSKA FYSIOLOGIE. Praha, Czechoslovakia, Vol. 7, no. 3, May 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 8, August, 1959.
Uncl.

CHUMANN, E

"Problems of organizing symposia."

CECHKOSLOVENSKA FYSIOLOGIE, Praha, Czechoslovakia, Vol. 7, no. 4, July 1968

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Monthly list of East Europe Accessions (EEA1), LC, Vol. 8, No. 6, Sept 59
Unclass

EXCERPTA MEDICA Sec 2 Vol 12/5 Physiology May 59

1645. ADAPTATION OF CARBOHYDRATE METABOLISM TO INTERMITTENT STARVATION IN DENERVATED MUSCLE - Gutmann E. and Vrbová G. Inst. of Physiol., Czechoslovak Acad. of Scis, Prague - PHYSIOL. BOHEM. 1958, 7/5 (424-430) Graphs 3 Tables 2

The adaptation of carbohydrate metabolism to intermittent starvation in normal and denervated striated muscle was studied. Increased glycogen synthesis which develops during a 6 weeks' adaptation process persists if denervation is carried out just prior to final refeeding. The decrease of the glycogen level in denervated muscle during further refeeding is slower than in normal muscle. In muscle denervated 6 weeks previously the adaptation reaction of increased glycogen synthesis cannot be elaborated. The increase in the glycogen content is small and does not exceed the original glycogen content in non-adapted animals. During the final 3 days' feeding the glycogen level does not fall as it does in normal muscle.

GUTMANN, E.; VRBOVA, G.

Effect of tubocurarine administered during pregnancy in rabbits on off-
spring. Gesk. fysiolo: 7 no.5:459.Sept 58.

1. Fysiologicky ustav Csav, Praha.

(CURARE,

tubocurarine, eff. of admin. in pregn. rabbits on offspring
(Cz))

(PREGNANCY,

eff. of admin. of tubocurarine in pregn. rabbits on off-
spring (Cz))

GUTMANN, E.; VRBOVA, G.

Continuation of adaptation reaction in interrupted hypothermia in normal and denervated muscles. Cesk. fysiол. 7 no.5:459-460 Sept 58.

1. Fysiologicky ustav CSAV, Praha.

(COLD, effects,

adaptation, reactions of normal & denervated musc. (Cz))

(ADAPTATION,

cold adaptation reactions in normal & denervated musc. (Cz))

(MUSCLES, physiol.

same)

GUTHANN, Z.; VRBOVA, G.

Significance of motor signalization in formation of conditioned motor food reflexes. Cesk. fysiolog. 7 no.5:461 Sept 58.

1. Fysiologicky ustav Csav, Praha.

(REFLEX, CONDITIONED,

motor signaling in form. of conditioned motor food reflexes
(Cz))

LODIN, Z.; FISCHER, J.; GUTMANN, E.; KOLOUSEK, J.

Turnover of methionine 35^8 in the cerebellar, diencephalic and spinal tissues in normal conditions and following nociceptive stimulation in rats. Cesk. fysiол. 8 no.3:221-222 Apr 59.

1. Fysiologicky ustav CSAV, Praha. Predneseno na III. fysiologickych dnech v Brne dne 14. 1. 1959.

(CENTRAL NERVOUS SYSTEM, metab.

methionine, eff. of pain stimulation in rats (Cz))

(METHIONINE, metab.

CNS, eff. of spin stimulation in rats (Cz))

(PAIN, exper.

eff. on CNS methionine metab. in rats (Cz))

ZAK, R.; GUTMANN, E.

Dissociation of the synthesis of nucleic acids from proteins in
denervated muscles. Cesk. fysiол. 8 no.3:264-265 Apr 59.

1. Fysiologicky ustav CSAV, Praha. Predneseno na III. fysiologickych
dnech v Brne dne 14. 1. 1959.

(MUSCLES, physiol.

eff. of denervation of nucleic acid synthesis dissociation
from proteins (Cz))

(NUCLEIC ACIDS, metab.

synthesis in denervated musc., dissociation from proteins
(Cz))

GUTMANN, E.; JAKOUBEK, B.

Neural regulation of induced glycermic reaction. Cesk. fysiол.
8 no.5:404-405 S '59

1. Fysiologicky ustav CSAV, Praha.
(HYPERGLYCEMIA, exper.)
(REFLEX CONDITIONED)

ASRATYAN, E. (Moskva); GUTMANN, E.; KONORSKIY, Yu. [Konorsky, J.] (Varshava)

Mechanisms of the motor activity of animals. Zhur. vys. nerv.

deiat. 9 no.2:301 Mr-Apr '59.

(MIRA 12:7)

(MOVEMENT, PSYCHOLOGY OF)

GUTMANN, E.; JAKOUBEK, B.

Experimental metabolic reactions to muscle work. Cesk. fysiол.
9 no.1:13-14 Ja 60.

1. Fysiologicky ustav CSAV. Praha.
(EXERCITION, blood)
(BLOOD SUGAR)

GUTMANN, E.

Early changes in protein and nucleic acid metabolism in denervated muscles. Cesk.fysiol. 9 no.3:231-232 My '60.

1. Fysiologicky ustav CSAV, Praha.
(MUSCLES physiol)
(NUCLEIC ACIDS metab)
(PROTEINS metab)

GUTMANN, E.; ZAK, R.

Nervous regulation of nucleic acid level in cross-striated muscle changes in denervated muscle. Physiol Bohemoslov 10 no.6:493-500 '61.

1. Institute of Physiology, Czechoslovak Academy of Sciences, Prague.
(MUSCLES metab) (NUCLEIC ACIDS metab)

GUTMANN, E.; ZAK, R.

Nervous regulation of nucleic acid level in cross-striated muscle .
resynthesis of nucleic acids and proteins in normal and denervated
muscle. Physiol Bohemoslov 10 no.6:501-509 '61.

1. Institute of Physiology, Czechoslovak Academy of Sciences,
Prague.

(NUCLEIC ACIDS metab) (MUSCLES metab)
(PROTEINS metab)

GUTMANN, E.; VRBOVA, G.

Significance of afferent signaling for reflex motor activity. Trudy
1-go MMI 11:117-128 '61. (MIRA 15:5)

1. Fiziologicheskiy institut Chekhoslovatskoy Akademii nauk, Praga.
(CONDITIONED RESPONSE)

GUTMANN, E.

Trophic functions of the nervous system. Vestnik CSAV 70 no.1:
74-75 '61.

1. Fyziologicky ustav, Ceskoslovenska akademie ved.

GUTMANN, E.; JAKOUBEK, B.; HAJEK, I.; ROHLICEK, V.; SKALOUD, J.

Effect of age on proteosynthesis in spinal motoneurons following nerve interruption as shown by histoautoradiography of S^{35} labelled methionine. Physiol. Bohemoslov. 11 no.5:437-442 '62.

1. Institute of Physiology, Czechoslovak Academy of Science, Prague.
(NEURONS) (SPINAL CORD) (METHIONINE)
(PROTEIN METABOLISM) (AGING)

GUTMANN, E. (Praga)

Trophic function of the nervous system. Usp.sovr.biol. 53 no.3:
323-346 My-Je '62. (MIRA 15:9)
(NERVOUS SYSTEM) (TISSUE METABOLISM)

NOVAK, Vladimir J.A., dr.; GUTMANN, Ernest, doc. dr.

The gliosecretion (gliosomata) and other Gomori positive structures
in the central nervous system of the cockroach *Periplaneta americana*
L. Cas entom 59 no.4:314-322 '62.

1. Czechoslovak Academy of Sciences, Entomological Institute, Praha 2,
Vinicna 7 (for Novak). 2. Physiological Institute, Praha 6, Na cvicisti
2 (for Gutmann).

GUTMANN, E.; DRAHOTA, Z.

Neurotrophic relations in the neuromuscular apparatus in old age.
Cas.lek. cesk. 101 no.36:1081-1086 7 S '62.

1. Fyziologicky ustav CSAV, Praha, prednosta prof. dr Zd. Servit,
DrSc.

(MYONEURAL JUNCTION) (AGING) (REGENERATION)

CZECHOSLOVAKIA

GUTMANN, E.; Institute of Physiology of the Czechoslovak Academy of Sciences
(Fysiologicky ustav CSAV,) Prague.

"The Physiology Curriculum as Viewed by the Research Physiologist."

Prague, Ceskoslovenska Fysiologie, Vol 12, No 4, July 1963; pp 292-293.

Abstract: World problems in teaching physiology have been produced by the impact of biochemical and biophysical advances; in Czechoslovakia the problems are aggravated by the inadequate time for lab exercises and excessive stress of producing clinicians rapidly, neglecting research scientists. Three factors are singled out: 1. decrease stress on data memorization and clarify the basic principles first; 2. speed up the use of new techniques; 3. integrate methodologic principles.

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APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000617710007-2"

GUTMANN, E.; JAKOUBEK, B.

Effect of increased motor activity on regeneration of the
peripheral nerve in young rats. Physiol. Bohemoslov. 12 no.5:
463-468 '63.

1. Institute of Physiology, Czechoslovak Academy of Sciences,
Prague.

(REGENERATION) (PERIPHERAL NERVES)
(MOVEMENT) (SWIMMING) (PHYSIOLOGY)

JAKOUBEK, B.; GUTMANN, E.; HAJEK, I.; SYROVY, I.

Changes in protein metabolism of peripheral nerve during functional activity. *Physiol. Bohemoslov.* 12 no.6:553-561 '63.

1. Institute of Physiology, Czechoslovak Academy of Sciences, Prague.

(NERVE TISSUE PROTEINS) (PERIPHERAL NERVES)
(ELECTROPHYSIOLOGY) (SWIMMING)
(CHROMIUM ISOTOPES)

GUTMANN, E.

Influence of activity and inactivity on the neuromuscular functions. Vestnik CSAV 72 no.1:95-96 '63.

HAJEK, I.; GUTMANN, E.; SYROVY, I.

Proteolytic activity and denervated and reinnervated muscle.
Physiol. Bohemoslov. 13 no.1: 32-38 '64.

1. Institute of Physiology, Czechoslovak Academy of Sciences,
Prague.

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GUTMANN, E.; HAJEK, I.

Metabolic differentiation of "fast" and "slow" muscles. Czech.
fysiol. 13 no.4:368-373 J1 '64.

1. Fysiologicky ustav Ceskoslovenske akademie ved, Praha.

SYROVY, I.; HAJEK, I.; GUTMANN, E.

Proteolytic activity of isolated protein fractions in normal and denervated muscle. *Physiol. Bohemoslov.* 14 no.1:12-16 '65

Degradation of proteins of *M. latissimus dorsi* anterior and posterior of the chicken. *Ibid.* :17-22

1. Institute of Physiology, Czechoslovak Academy of Sciences, Prague.

CZECHOSLOVAKIA

SYROVY, I., HAJEK, I., GUTMANN, E; Physiological Institute,
Czechoslovak Academy of Sciences (Fysiologicky Ustav CSAV).
Prague.

"Factors Influencing Proteolytic Activity in Denervated Muscle."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, p 118

Abstract: Proteolytic activity was determined by measuring the amount of substrate decomposed by muscle extract from a normal and a denervated muscle. As substrate denatured hemoglobin, glycyl-L-phenylalanyl-p-nitroanilid, leucine-p-nitroanilid and glycine-p-nitroanilid were used. The increased proteolytic activity shown by a denervated muscle is not due to a change in concentration of activators or inhibitors of proteolytic enzymes or to the release of bound lysosomal enzymes or to structural changes of muscle proteins, but probably is due to an increase in synthesis of active proteolytic enzymes. 2 Western, 3 Czech, 2 Russian references. Submitted at "16 Days of Physiology" at Kosice, 29 Sep 65.

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CZECHOSLOVAKIA

GUTMANN, E., HANZLIKOVA, V; Physiological Institute, Czechoslovak Academy of Sciences (Fysiologicky Ustav CSAV), Prague.

"Motor Unit in Old Age."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, pp 109-110

Abstract: Investigation of motoric reactions of rats is reviewed. The actual condition of the neuromuscular unit is discussed. In aging, some regressive changes and decreased cholinesterase activity are observed. The limitations of the motor unit in old age are a result of terminal regressions in the neuromuscular connections. Release of acetylcholine and cholinesterase activity are reduced. 2 Western, 2 Czech references. Submitted at "16 Days of Physiology" at Kosice, 29 Sep 65.

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Some Formulas of Stroke

1860:

Gutmann, M. Quelques formules stokiennes. Bul.
Inst. Politehn. București 18 (1956), no. 3-4, 119-128.
(Romanian. Russian and French summaries)

By use of various vector identities, the general theorem
of Stokes (relating line integrals to surface integrals and
surface integrals to volume integrals) is expressed in
different forms. Five formulas are derived for possible
use in electromagnetic theory and fluid mechanics.
Finally the variation of the circulation is considered.

N. Coburn (Ann Arbor, Mich.);

2
1-FW

16

Some Remarks on a Group of Transformations

Gutmann, Marcian. Quelques remarques sur un groupe
de transformations à un paramètre sur l'espace Z_n . Bul.
Inst. Politehn. Bucuresti 19 (1957), no. 3/4, 31-35.
(Romanian, Russian and French summaries)

The group $\omega_p(0, \lambda)$, defined above [#6061], can be
transformed into a group expressed by

$$y = x + (e \cdot x)e,$$

where e is a constant vector. The space may be complex.
It is shown how certain relations based on this equation
can be generalized to more general vector spaces.

D. J. Struik (Cambridge, Mass.)

ck
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2
1-f/W

FARCASIU, D.; BALABAN, A.T.; GUTMANN, M.

On the acetylation of 4-chloro-3,4-dimethylpentane-2-one with acetyl chloride- $l\text{-}^{14}\text{C}$. Rev chimie Roum 9 no.11:727-741 N '64.

1. Polytechnic Institute, Bucharest, 1 Polizu Street (for Farcasiu, Gutmann). 2. Institute of Atomic Physics, Bucharest, P.O.Box 35 (for Balaban).

GUTMANN, K.

The problems of neurotrophyl. Acta physiol. hung. Suppl. no.6:9-10
1954.

1. Physiologisches Institut der Tschechoslowakischen Akademie der
Wissenschaften, Prag.

(NERVES, physiol.
neurotrophyl)

GALLIOVA, J., Dr.; GUTMANOVA, A., Dr.

Results of mass vaccination against tuberculosis in Prague in 1949 to 1950. I. communication. Complications after BCG vaccination. Cas.lek.cesk. 91 no.5:129-138 1 Feb 52.

1. St. zdrav. ustav, Odbor pro mikrobiologii a epidemiologii. Odd. pro vyzkum a diagnostiku tuberkulosis.
(BCG VACCINATION, complications,
in Czech. in mass vacc.)

GUTMANOWA I.

ALEKSANDROWICZ J., GRABOZYNSKA Z., GUTMANOWA I., KUKLA B., JOZWA J., KUCHA T. and
PACHONSKA J. Univ. in Cracow. Wplyw iperytu azotowego na ustępowanie porażen w.
gruzliczym zapaleniu opon móżgowo-rdzeniowych leczonych streptomyc. na the influence
of nitrogen mustard on the regression of paralysis in cerebrospinal meningitis
treated with streptomycin Polsk. Tyg. Lek. 1949, 4/40 (1181-1182)

A decrease of paralysis in TB spondylitis, observed a few hours after the administration
of nitrogen mustard, encouraged the authors to investigate its influence on other para-
lytic states especially in the course of TB. There regression of paralysis in 6 children
treated in Clinic for Children's Diseases in Warsaw. This chemical compound was also
found to cure paralysis of the peripheral nerves in meningitis of some week's standing,
but it does not prevent the development of paralysis. Nitrogen mustard was used in-
travenously in doses of 0.01 g. per kg. body weight daily, repeating doses every 24
hours from 2-3 times. The therapeutic results are perhaps due to the resorptive and
anti-inflammatory action of the chemical, or to irritant action on the nervous tissue.
The latter hypothesis is confirmed by observations of certain effects on paralysis of
various origin (peripheral neuritis, radiculitis, cranial nerve palsy, also in spastic
contractures is rheumatoid arthritis) and by some evidence of relief in cases with the
clinical symptoms of optic nerve atrophy (observed in the ophthalmological clinical
of Jagiel University). It may be that in the phenomena described there is a chain of
reactions, the link of which is the specific action of the nervous system and through
it, diminution of the clinical symptoms of inflammation.

Aleksandrowicz - Cracow

So: Neurology & Psychiatry Section VIII, Vol. 4, No. 1-6

GUTMANOWA, P.

"Porous spongy plastic materials" p. 278 (Chemik, Vol. 6, No. 10, Oct. 1953, Katowice)

SO: Monthly List of Russian Accessions, East European Vol. 3, No. 3, Library of Congress, March 195⁴, Uncl.

BEJAN, I.; UNGUREANU, C.; COTOGIU, E.; COJERMANU, P.; GUTMAYER, H.

Study of the pulverization uniformity in rotative injectors.
Bul St si Tehn Tim 9 no.1:57-64 Ja-Je '64.

1977, A. D.

GUERIN, L. S. "Fungal diseases of mosses: plants in the ponds of Leningrad and Volsko: Selo," Trudy botanicheskogo instituta Akademii Nauk SSSR, Series 2: Sporovye Masteniz, no. 1, 1933, p. 265-323. 4pl. 31.

So: SIRA 31-90-53, 15 Dec. 1993

Gutner, B. M.

USSR/Electronics - Self-anode modulation of transmitters

FD-1054

Card Pub 90-2/12

Author : Z. I. Model', S. V. Person (deceased), and B. M. Gutner

Title : Problem of the theory of self-anode modulation

Periodical : Radiotekhnika 9, 22-32, Jul/Aug 1954

Abstract : The article treats operating conditions of a high-power amplifier in N. G. Kruglov's basic self-anode modulation circuit, sets forth procedure for calculating its modulation characteristics, and discusses the question of its changing power consumption under modulation. The power indexes of self-anode modulation are compared with those of Class B anode modulation. Three references: USSR, 1939, 1940, 1949. Graphs; tables.

Institution : --

Submitted : 1 February 1951

8-17-86 K P M

"Automatic Tuning of the Terminal Stage Circuit of a High-Frequency Synchrophasotron Oscillator at 10 Billion Electron Volts," G. H. Drabkin, L. M. Gurevich, B. M. Gutner, and N. K. Kaminskiy, Radiotekhnika i Elektronika, No 7, Jul 56, pp 965-973

A system is described for the automatic tuning of the terminal circuit of a high-frequency synchrophasotron track to compensate for the varying frequency of the excitation voltage in the process of acceleration. The tuning of the circuit is produced by magnetizing the ferrite core inductance.

The control signal of the system was found to be proportional to the phase difference between the input and the output voltages of the terminal cascade.

The notion was first introduced in 1952 by Prof I. Kh. Nevyazhskiy, and persons contributing to it at various times were K. N. Bulychev, N. V. Trunova, Yu. M. Lebedev-Krasin, B. M. Murin, and A. I. Prokop'yev. Application of the system to a synchrophasotron was accomplished in the period 1955-1956, and persons affiliated at this stage were V. V. Yekimov, A. I. Prokop'yev, Yu. F. Tsibul'skiy, K. V. Chekhlov, and S. N. Yurov.

1305

S/194/61/000/009/049/053
D271/D302

9.3275

AUTHOR: Gutner, B.M. and Fuzik, N.S.

TITLE: Frequency distortions in phase modulation

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
no. 9, 1961, 2, abstract 9 K5 (Nauchno-tekhn. in-
form. byul. Leningr. politekhn. in-t, 1960, no. 9,
16-25)

TEXT: It is pointed out that the modulation index of
phase modulation in the preliminary amplification stages does not
exceed 20 - 30°. This means that the frequency spectrum which must
be passed by the oscillating circuit does not, in practice, differ
from that of amplitude modulation, and the character of frequency
distortion will be the same as in the amplification of the modula-
ted oscillations. The position is different in the penultimate and
final stages of a transmitter. Frequency distortions in these
stages are investigated, in the case of phase modulation in under-

Card 1/2

Frequency distortions...

S/194/61/000/009/049/053
D271/D302

saturated operation. An equivalent circuit of penultimate stages is formed, in which tubes are replaced by current generators. Making a number of assumptions (e.g. $D = 0$, etc) the author obtains analytical relations which make it possible to construct amplitude-frequency and phase-frequency characteristics of the apparent resistance, for various degrees of coupling between channels. It is shown that the law of amplitude and phase modulation of output voltages differs from the law of modulation of currents. Further on, frequency distortion is investigated in final power stages. It is shown that they give rise mainly to linear (amplitude-frequency and phase-frequency) distortions; furthermore, the character of these distortions differs substantially from those occurring in the amplification of modulated waves. Results of experimental checking of obtained data are given showing their good agreement with computed data. 2 references. [Abstracter's note: Complete translation]

Card 2/2

L0738

S/120/62/C00/004/003/047

E140/E420

14 6732
AUTHORS: Rubchinskiy, S.M., Batskikh, G.I., Vasil'yev, A.A.
Vodop'yanov, F.A., Gutner, B.M., Kuz'min, A.A.,
Kuz'min, V.F., Lebedev-Krasin, Yu.M., Uvarov, V.A.

TITLE: The electronic system of the 7 Gev proton synchrotron

PERIODICAL: Pribery i tekhnika eksperimenta, no.4, 1962, 20-26

TEXT: The article surveys the electronic system of the 7 Gev proton synchrotron, the individual parts of which are described in individual articles in the same number of the journal. The electronic circuits control the continuous increase of the energy of the accelerated particles. For the chamber aperture used in the apparatus, the deviation of the momentum from the equilibrium value cannot exceed $\pm 5 \times 10^{-3}$. The instantaneous values of H must be held to within 10^{-3} at the start ($f = 0.67$ Mc/s) and 5×10^{-5} at the end of the acceleration cycle ($f = 8.31$ Mc/s). The synchrotron frequency varies from 3600 to 130 c/s. To keep the oscillations of phase with passage through resonance less than the adiabatic damping of these oscillations, the harmonic frequency modulation of the accelerating potential by the synchrotron frequency should not exceed 0.5 c/s and the harmonic amplitude

Card 1/3

S/120/62/000/004/003/047
E140/E420

The electronic system of ...

of the modulation at the same frequencies should be less than 2×10^{-4} at the start and 5×10^{-3} at the end of the cycle. The spectral density of noise modulation should be of the order of $2 \times 10^{-3} \text{ cs}^2/\text{cs}$. The precision of measuring H at the instant of injection was prescribed as 3×10^{-4} . These requirements are met by a programmed frequency control with correction for the radial and phase positions of the beam, calculated for beam intensities of 10^8 to 10^{12} particles. The beam measuring system consists of a precise discrete integrator and a meter for the initial level of the magnetic field intensity. Special equipment is required for the automatic measurement of the instantaneous values of frequency and field intensity, the measurement of micromodulation of the frequency and amplitude of the accelerating potential, variations of beam intensity over the acceleration cycle, the azimuthal distribution of particle density in the bunch, and the position of the beam in the vacuum chamber. An overall block diagram of the system is given and also summary descriptions of the systems for generating the accelerating field, the acceleration control and the measuring equipment. The

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The electronic system of ...

S/120/62/000/004/003/047
E140/E420

particles are accelerated at the seventh harmonic of their frequency of revolution - in the band from 0.67 to 8.31 Mc/s. The energy increase is 4.3 keV per revolution. The accelerating elements are 2.4 m drift tubes located in 11 compensating electromagnets. The transit angle in each tube is about 25° and the ratio of accelerating potential to the potential across the tube is about 0.43. The system ensures a phase oscillation of the beam below 0.05 r and stabilizes the radial position to within ± 1 mm. There is 1 figure. ✓

ASSOCIATION: Radiotekhnicheskiy institut GKAE
(Radio Engineering Institute GKAE)

SUBMITTED: April 23, 1962

Card 3/3

10712

S/120/62/000/004/016/047
E192/E382

24.6730

AUTHORS: Lebedev-Krasin, Yu.M., Gutnor, B.M., Pisarevskiy, V.Ye.,
Temkin, A.S., Barabash, L.Z., Kuryshv, V.S. and
Moiseyev, A.I.

TITLE: The accelerating elements of the proton synchrotron
and the system of their high-frequency feed

PERIODICAL: Pribery i tekhnika eksperimenta, no. 4, 1962,
94 - 97

TEXT: The description, principal characteristics and the
results of the control of the h.f. accelerating system of the
7 GeV proton cyclotron are reported. The accelerating elements
are in the form of drift tubes situated in 11 compensating
magnets. Each of the 11 electrodes is fed from a separate
system of high-frequency amplifiers consisting of a 7-stage
wideband amplifier and an automatically-tuned resonance output
amplifier. The inductances of the resonant circuit in the output
stages are in the form of coils fitted with ferrite cores. The
amplitude of the high-frequency field of each accelerating
electrode is $2.5 \text{ kV} \pm 10\%$ over the frequency range of
Card 1/2

The accelerating elements

S/120/62/000/004/016/047
E192/E382

0.65 - 8.5 Mc/s. The phase-shift between the output voltages of any two channels is less than 30° . The overall power used by the supply system is 400 kVA. By using tuned amplifiers in the output stages the power consumption was reduced by about 30 times, as compared with a non-tuned amplifier. There are 4 figures.

SUBMITTED: March 29, 1962

Card 2/2

GUTNER I. I. Old age changes in the Purkinje cells of the cerebellar cortex in man Archiv Patologiyi, Moscow 1949, 11/6 (58-63) Tables 7 Illus. 4

Changes found in the Purkinje cells in old age have been previously described. The present study is concerned with senile changes in the dendrites and axons of the cells. Localized swellings and condensed areas of argyrophil fibres, some of which are large and superficially resemble nerve cells, are seen in some of the dendrites. Varicosities of the dendrites are more common than the above changes. Lentil-like swellings are seen along the course of the axons. These swellings are more numerous in the inner part of the molecular layer than in the granular layer of the cerebellum. The author concludes by giving a short description of ectopic Purkinje cells seen in his material.

Crome - (World Medical Abstracts) (V, 8)

So: Neurology & Psychiatry Section VIII Vol. 3 No. 7-12

PA 2/50T86

GUTNER, I. I.

USSR/Medicine - Melanin
Nerve Cells

Sep 49

"Nerve Cells in the Human Brain Which Contain
Melanin," I. I. Gutner, A. M. Levikova, 3 pp

"Dok Ak Nauk SSSR" Vol LXVIII, No 1

Used tens of embryos (3-10 months) and tens of
brains from both children and adults for the
study. Showed that process of melanin accumula-
tion begins in its first phase (prepigmentation)
in the prenatal period, and is completed in its
second phase (pigmentation) in the first months
and years (not later than 2 years) of life.
Submitted by Acad L. A. Orbeli 4 Jul 49.

2/50T86

GUTNER, I.I.

GUTNER, I.I.; NOSOVA, G.D.

Specific granulation in the nerve cells of the human brain. Doklady
Akad.nauk SSSR 77 no.1:105-107 1 Mar 51. (CLML 20:6)

1. Presented by Academician K.I.Skryabin 2 January 1951.

GUTNER, I.I.

USSR/Biology - Histology

Jul 52

"Changes Due to Age and Occurring in a Special Fuchsinophilic Granularity of the Nerve Cells of the Human Brain," I. I. Gutner, G. D. Nosova, Yaroslavl' State Med Inst

"Dok Ak Nauk SSSR" Vol LXXXV, No 1, pp 195-197

Found that the granularity in question is absent in young children, slowly increases (reaching a max at the age of 18-30 yrs), and begins to drop off at an age of about 50 yrs. Presented by Academician K. I. Skryabin 6 May 52.

224T1

GUTNER, I.I.

Betz's spindle cells of the cerebral cortex in man. Zhur.nevr.i
psikh. 54 no.4:349-350 Ap '54. (MLRA 7:5)

1. Kafedra gistologii Yaroslavskogo meditsinskogo instituta.
(CEREBRAL CORTEX, anatomy and histology,
*spindle cells)
(CELLS,
*spindle cells in cerebral cortex)

Gutner, I. I.

1. Deposition of melanin in the nerve cells of the brain in dog. I. I. Gutner (State Med. Inst., Yaroslavl). *Doklady Akad. Nauk S.S.R.* 97, 531-3 (1954); cf. *ibid.* 69, 157-9 (1949).—Examn. of nonalbino animals (cats, dogs, rabbits, and guinea pigs) showed that lipofuscin is found in adult specimens in various nerve cells, but melanin is found only in the dog brain where it is located in the hypothalamic area. The cells contg. melanin are distributed over a certain area from the frontal edge of the optic chiasm to the point of entry of fornix fibers, i.e., near the frontal pole of the mammillary bodies. While the pigment was not directly visible in young pups, it could be detected chemically from 2 months of age on. Melanin is deposited in these cells in the form of small irregularly shaped particles, forming massive agglomerations in the cytoplasm. O. M. Kosolapov

GUTNER, I. I.

USSR/ Biology - Embryology

Card 1/1 : Pub. 22 - 45/46

Authors : Gutner, I. I, and Faynberg, V. B.

Title : Evolution in the structure of the yolk pocket in 3 - 10 weeks old human embryos

Periodical : Dok. AN SSSR 97/4, 745-748, Aug 1, 1954

Abstract : Medical report on the evolution of the yolk pocket structure in 3 - 10 weeks old human embryos. Twelve references: 4-German; 2-USA; 4-USSR; 1-French and 1-Italian (1896-1950). Illustrations.

Institution : State Medical Institute, Yaroslav

Presented by : Academician K. I. Skryabin, May 3, 1954

GUTNER, I. I.

USSR/Morphology of Man and Animals. Embryology and Developmental Anomalies.

S-5

Abs Jour: Referat Zh.-Biol., No 1, 10 January, 1958, 2919.

Author : Gutner I.I., Fainberg V.B.

Inst :

Title : Evolutional Development of the Yolk Sac from the 10 Week Embryo to the End of Uterine Life.

Orig Pub: Dokl. AN SSSR, 1955, 103, No 5, 933-936.

Abstract: Toward 10 weeks of gestation the internal endodermal yolk sac epithelium is destroyed and is sloughed off. Detritus which includes epithelium and disintegrating phagocytes is found in the yolk sac cavity. Large numbers of phagocytes are found in mesenchyma bordering the cavity. The mesenchyma becomes loose toward the periphery and contains unattached cellular elements. On the periphery of the yolk sac, the mesenchyma becomes denser and is vascular. After 12-13 weeks the vessels

Card : 1/2

-7-

USSR/Morphology of Man and Animals. Embryology and Developmental Anomalies. APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000617710007-2"

S-5

Abs Jour: Referat Zh.-Biol., No 1, 10 January, 1958, 2919.

located at the periphery undergo degeneration. Mesenchymal mitoses disappear after 14-15 weeks. After six months, the yolk sac wall consists of cicatricial tissue with tonofibrils in it.

Card : 2/2

-8-

20-6-38/47

AUTHOR: GUTNER, I. I.
Gutner, I. I.,

TITLE: On the Esophageal Innervation of Man in the Embryonic Period (K innervatsii pishchevoda u cheloveka v embrional'nom periode)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 6, pp. 1057-1059 (USSR)

ABSTRACT: In contrast to the good elucidation of this innervation in adults there exist only a few papers concerning the subject mentioned in the title. The author impregnated the esophagi of 20 human fetuses (5-8 lunar months old) according to Kakhal' - Favorskiy. In 5 months old embryos very sparse nerve elements with 4-8 processes were found in the ganglions of the Auerbach plexus. The processes were 2-6 times longer than the diameter of cells. The dendrites of these elements ramified on the way and formed small dilations of a netlike structure in the place of ramification (figure 1 a). In 6 months old embryos more nerve cells had processes whose number amounted to 10 and more per cell. Dendrite ramifications occurred more often (figure 1 b). In 8 months old embryos the number of cells of this plexus provided with large processes seemed to be still higher. Neurons with 15-20 and more dendrites were to be found in many ganglions. Almost all of them were to a different degree ramified and had dilations of a netlike structure (figure 1 v). To judge from the figures of earlier authors (reference 3-8)

Card 1/3

, On the Esophageal Innervation of Man in the Embryonic Period. 20-6-38/47

no differences of many of these nerve cells of the intermuscular plexus against the neurons in a fully differentiated state were to be determined. At the sametime the vast majority of the elements of this plexus seemed completely to lack the processes. Besides these elements were much smaller than the mentioned process-bearing cells. It is not out of the question that the processes due to their small thickness cannot be impregnated with silver and therefore remain invisible. Extremely fine fibrils which ended in tiny and fine ringlets were noticed in the ganglions of the Auerbach plexus. It is to be assumed that they are synaptic formations. It was, however, not possible to find out with which structures they came into touch. In the same embryos nerve terminations could be observed in the epithelium (figure 2). Figure 3 shows a nerve fiber which together with its collaterals completely lay in the region of the submucosa. Motor terminations were from time to time noticed in the transversely striated musculature of the 8 months old embryos (figure 4). Thus all these facts justify the assumption that in the last third of the embryonic period enough conditions exist for the reflexive activity of the esophagus, directed toward sustaining the life outside the mother's body of a child born several months too early.

Card 2/3

On the Esophageal Innervation of Man in the Embryonic Period.

20-6-38/47

There are 4 figures, and 8 references, 7 of which are Slavic.

ASSOCIATION: **Yaroslavl Medical Institute** (Yaroslavskiy meditsinskiy institut).

PRESENTED: August 15, 1957, by L. A. Orbeli, Academician

SUBMITTED: June 8, 1957

AVAILABLE: Library of Congress

Card 3/3

GUTNER, I.I., doktor med.nauk

On innervation of the trachea in human fetuses. Vop.otorin. 21
no.6:86-88 N-D '59. (MIRA 13:5)

1. Iz kafedry gistologii (zaveduyushchiy - prof. I.I. Gutner) Yaroslavskogo meditsinskogo instituta.
(TRACHEA, innervation)
(FETUS)

17(1)

AUTHORS:

Gutner, I. I., Zubryakov, S. V., Solov'yeva, Ye. N. SOV/20-124-2-53/71

TITLE:

On Stomach and Intestine Innervation in Human Embryos (K innervatsii zheludka i kishechnika u cheloveka v embrional'nom periode)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 2, pp 428-431 (USSR)

ABSTRACT:

The plexus myentericus was described already at the beginning of the sixties of last century and since then has been continuously investigated. However, the structure of the nerve cells mentioned in the title has been investigated only in the last decades. A survey of publications is then given (Refs 1-8). Data on the nerve cells of the plexus myentericus, especially concerning the length of the appendages are very contradictory. The authors investigated the structure of the nerve cells of the plexus myentericus in 25 embryos and fetuses (length: 7-41 cm, age: 2.5-8 months) in the stomach (body and pylorus), duodenum, in the caudal section of the small intestine and in the rectum. The appendages of the nerve cells were found in embryos and fetuses of different age (Figs 1-4). In any case a

Card 1/3

On Stomach and Intestine Innervation in Human Embryos SCV/20-124-2-53/71

great number of neurons with 5-6 appendages which are longer than the cellular bodies, can be found in all intestinal sections at an age of about 5 months (length: 24-26 cm); moreover, they have a very long axon. The shape of the cells becomes slightly or considerably more complicated some months later. The main part of the elements of the plexus myentericus remained without appendages on cuts. Since the silvering methods applied are not reliable it is uncertain whether the observations made fully correspond to reality. Therefore, the authors use very carefully the denotations undifferentiated or neuroblasts of the cells which are "apolar" according to their exterior. For the same reason the data of appearance of the elements with appendages of the various sections of the stomach and intestine can hardly be ranged as such. In any case it was proved by the investigations mentioned that beginning with the 5th or 6th month of the embryo's life complex nerve cells can be found in Auerbach's plexus of the stomach and intestine. They have dendrites as well as neurites and are thus able to enter these or those reflex arches. Complex receptors were found in embryos 12, or 22-45 cm long, i.e. in the individual parts of the intestine (Refs 8,9). Also the authors found com-

Card 2/3

On Stomach and Intestine Innervation in Human Embryos SOV/20-124-2-53/71

plex nerve endings in fetuses of an age of 5-7 months (Fig 4). The above data make it possible to form an idea of the nerve substratum which permits intestinal and gastric activity of the fetuses beginning with the 6th month. It is generally known that such premature births can be bred with the necessary care. There are 4 figures and 11 references, 9 of which are Soviet.

ASSOCIATION: Yaroslavskiy meditsinskiy institut (Yaroslavl' Medical Institute)

PRESENTED: September 18, 1958, by N. N. Anichkov, Academician

SUBMITTED: September 16, 1958

Card 3/3

GUTNER, I.I.

Structure of the wall of the terminal ventricle of the spinal cord
in man. Arkh.anat.gist.i embr. 38 no.4:94-96 Ap '60.

(MIRA 14:5)

1. Kafedra gistologii (zav. - prof. I.I.Gutner) Yaroslavskogo
meditsinskogo instituta. Adres avtora: Yaroslavl', Revolyutsionnaya
ul., 5, Meditsinskiy institut.

(SPINAL CORD)

GUTNER, I.I. (Leningrad, 51, Beloostrovskaya, 39, korp.4, kv.48);
LEVIN, N.A. (Yaroslavl', ul. Tolbukhina, 37/17, kv.31)

Phenomena of "fenestration" and "balls" in the neurons of sensory ganglia. Arkh.anat.,gist.i embr. 44 no.1:93-100 Ja '63. (MIRA 16:5)

1. Kafedra patologicheskoy anatomii (zav. - prof. V.G. Chudakov)
Leningradskogo pediatricheskogo meditsinskogo instituta i kafedra
normal'noy anatomii (zav. - prof. A.N. Alayev) Yaroslavskogo
meditsinskogo instituta.

(NERVES--ANATOMY)

GUTNER, M. D.

Childbirth and skull injuries of the newborn Leningrad, Voenno-morskoi med.
aka-demii, 1945. 145 p.

GUTNER, M. D.

6373. Regulatory mechanism of the menstrual phase of the estrus cycle. M. D. Gutner Shori. *Trans. Resonance, and. Int.* 1953, 3, 185-187; *Reprod. 74. Biol.* 1953, Abstr. No. 97536. — In normally menstruating women daily injections for 5 days before the onset of menstruation of 1 mg. of "Lonestal" or 10 mg. of progesterone prevented menstruation for several days. Simultaneous injection of both hormones restrained menstruation for the whole of the time it was used (2 weeks). The menstrual phase is brought about by a relative change in the concn. and not by the level of either one hormone. (Russian) *St. Asper*

KOSTYGOV, Igor' Nikiforovich; SHEYNIN, Shilin Shmylovich; BOGUSLAVSKIY,
B.L., prof., retsenzent; GUTNER, N.G., inzh., red.; CHEPAS, M.A.,
red., izd-va; SOKOLOVA, L.V., tekhn. red.

[Automatic straight turning lathes] Avtomaty prodol'nogo tocheniia.
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958.
239 p. (MIRA 11:10)

(Lathes)

MITROFANOV, S.P., kand.tekhn.nauk, laureat Leninskoy premii, red.;
AZAROV, A.S., kand.tekhn.nauk, red.; GUTNER, N.G., inzh., red.;
KAMNEV, P.V., kand.tekhn.nauk, red.; KUTAY, A.K., kand.tekhn.
nauk, red.; REZNIKOV, R.A., inzh., red.; SHALGIN, G.N., kand.
ekon.nauk, red.; SIMONOVSKIY, N.Z., red.izd-va; SPERANSKAYA,
O.V., tekhn.red.

[Group techniques in the manufacture of machinery and instruments]
Gruppovaya tekhnologiya v mashinostroenii i priborostroenii. Moskva,
Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 378 p.

(MIRA 13:9)

(Machinery industry)

(Instrument manufacture)

TABAKOV, P.M.; ZAZERSKIY, Ye.I., inzh., retsenzents; GUTNER,
M.G., inzh., red.

[Jig boring] Koordinatno-rastochnye raboty. Moskva,
Mashinostroenie, 1965. 238 p. (MIRA 18:12)

ZAVERSKIY, Yevgeniy Ivanovich; GUTNER, Naum Grigor'yevich; KROPIVITSKIY,
N.N., inzh., retsenzent; AZAROV, A.S., kand.tekhn.nauk, red.;
LEYKINA, T.L., red.izd-va; SHCHETININA, L.V., tekhn.red.

[Boring-machine operator] Tokar'-rastrochnik. Moskva, Gos.nauchno-
tekhn.izd-vo mashinostroit.lit-ry, 1960. 414 p. (MIRA 13:9)
(Drilling and boring machinery)
(Metal cutting)

MITROFANOV, Sergey Petrovich; GUTNER, Naum Grigor'yevich; KUCHER, I.M.,
kand. tekhn. nauk, retsenzent; ANSEROV, M.A., kand. tekhn. nauk,
red.; CHFAS, M.A., red. izd-va; KUREPINA, G.N., red. izd-va;
SHCHETININA, L.V., tekhn. red.

[Turret lathes and their efficient use] Revol'vernye stanki i ikh
ratsional'noe ispol'zovanie. Moskva, Mashgiz, 1962. 349 p.

(MIRA 16:3)

(Lathes) (Turning)

MITROFANOV, S.P., doktor tekhn. nauk, prof.; GUTNER, N.G., inzh.
red.

[Scientific fundamentals of technological preparation
of group production] Nauchnye osnovy tekhnologicheskoi
podgotovki gruppovogo proizvodstva. Moskva, Mashino-
stroenie, 1965. 394 p. (MIRA 19:1)

GUTNER, YA. I.

PA 64/49T76

USSR/Medicine - Sulfidine
Medicine - Stomatology

Apr/May/Jun 49

"Further Observations on the Use of Sulfidine in
Stomatological Practice," Prof I. M. Starovinskiy,
Chief, Chair of Maxillary Surg, Docent Ya. I.
Gutner, Chair of Maxillary Surg, Second Moscow Med
Inst imeni I. V. Stalin, 5 1/3 pp

"Stomatol" No 2

Recommends sulfidine in the form of: sulfanalgesine
for hyperesthesia of the dentine and for insertion
in treating acute periodontitis, albucid solutions
or norsulfasol sodium in treating infected canals,
and sulfocalcium pastes in pronounced caries,
fillings, pulpitis, etc.

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